

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/31523

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 31/47, 31/535; C07D 413/00, 215/16, 215/20.

US CL : 514/312, 235.2, 253, 266.2, 266.3; 544/128, 235, 238, 284, 293, 363, 405.

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 514/312, 235.2, 253, 266.2, 266.3; 544/128, 235, 238, 284, 293, 363, 405.

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
CAPLUS and EAST

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	6,143,764 (KUBO et. al.) 07 November 2000 (07.11.2000), columns 14-18.	45 and 105
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A	US 5,480,883 (SPADA et. al.) 02 January 1996 (02.01.1996), columns 55-58.	45 and 105
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A	WO 95/15758 (RHONE-POULENC RORER PHARMACEUTICAL INC.) 15 June 1995 (15.06.1995), page 15.	45 and 105
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A	WO 97/17329 (KIRIN BEER KABUSHIKI KAISHA) 15 May 1997 (15.05.1997), page 30.	45 and 105
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Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

19 March 2005 (19.03.2005)

Date of mailing of the international search report

06 APR 2005

Name and mailing address of the ISA/US

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PCT/US04/31523

## C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	OGITA, H. et. al., Synthesis and Structure--Activity Relationship of Diarylamide Urea Derivatives as Selective Inhibitors of the Proliferation of Human Coronary Artery Smooth Muscle Cells. Bioorg. & Med. Chem., 2002, Vol. 10, No. 6, pp. 1865-1871.	45 and 105
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A	BOSCHELLI, D.H. et. al., Synthesis and Src Kinase Inhibitory Activity of a Series of 4-Phenylamino-3-quinolinecarbonitriles. J. Med. Chem., 2001, Vol. 44, No. 5, pp. 822-833.	45 and 105

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## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 1-44 and 46-104  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  
Please See Continuation Sheet
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

## Continuation of Box II Reason 2:

Claim 1 recites limitations that are either not realistic or inconsistently defined. For example, when  $m$  or  $p > 1$ , and  $X^1$  is either O or S, then there could be up to 4O's or 4S's in the bridge (i.e., -O-O-O-O-, or -S-S-S-S-). Such a ring is not realistic. Also in claim 1,  $X^1$  can be  $-NR^8-$ , in which  $R^8$  appears as a substituent on N (or a terminal group, or a monovalent group). However, the definition of  $R^8$  includes Y, which is a linking group (or a divalent group). Thus, when  $X^1$  is  $-NR^8$ , it is not clear what is substituted on N, or how  $X^1$  is attached to  $X^2$  (via N or  $R^8$ ).

The proviso in claim 1 (on page 298) is unclear as to which end of the G portion is attached to Ar.

Claim 2 depends on claim 1, but refers to the specification (paragraph [0033]).

Therefore, it is not clear which set of compounds is intended in claim 2.

Because claims 1 and 2 are unclear, no meaningful search can be carried out.

Claims 3-44 depend on claim 1, and recite subgenera derived from Formula I which is too unclear for a meaningful search.

Claim 46 recites the formula of A-B-C. In the definition of B, it is not clear which end of the linking group is attached to A, and which end attached to C. Also, the definition of  $R^9$  (on page 377) is unclear. Particularly, the phrase "*when taken together, are either an optionally substituted alkylidene or an oxo*" does not indicate which groups are taken together (i.e.,  $R^9$ ,  $R^{10}$  and  $R^{11}$  are taken together? Or  $R^{10}$  and  $R^{11}$ ? Or  $R^{12}$ ,  $R^{10}$  and  $R^{11}$  are taken together?). Because claim 46 is unclear, no meaningful search can be done.

Claims 47-104 depend claim 46, and recite subgenera derived from formula A-B-C, their scopes are also too unclear for a meaningful search.